

AMENDMENTS TO THE CLAIMS:

Please amend claims 1-13 and add new claims 14-20 as follows. The following listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (Currently Amended). A correlation ~~Correlation~~ system ~~[[4]]~~ for correlating an input signal with a number of code signals each having a code length, ~~characterized in that said correlation system (4) comprises~~ comprising:

- 5 a plurality of correlators; and
- a controller ~~[[3]]~~ for controlling said correlation system ~~[[4]]~~ for performing iterative correlations and for adapting at least one correlation parameter per iterative correlation, a first one of the at least one correlation parameter being a
- 10 length of code signals, said controller controlling said
- correlators such that first correlations are performed by all of
- said correlators using the same code signals each having a first
- length smaller than said code length and second correlations are
- performed by only a portion of said correlators selected based on
- 15 results of the first correlations and using the same code signals
- each having a second length larger than said first length and

smaller than or equal to said code length.

Claim 2 (Currently Amended). The correlation ~~Correlation~~
system ~~[[4]]~~ according to claim 1, ~~characterized in that a~~
~~first correlation parameter corresponds with the length of code~~
~~signals, with first correlations using code signals each having a~~
5 ~~first length smaller than said code length, and with next~~
~~correlations using code signals each having a second length~~
~~larger than said first length and smaller than or equal to said~~
~~code length~~ wherein the second length is smaller than said code
length, said controller controlling said correlators such that
10 third correlations are performed using the same code signals each
having a third length larger than said second length and smaller
than or equal to said code length, said third correlations being
performed by fewer correlators than used to perform said second
correlations.

Claim 3 (Currently Amended). The correlation ~~Correlation~~
system ~~[[4]]~~ according to claim ~~[[2]]~~ 1, ~~characterized in that~~
wherein a second correlation parameter corresponds with the
number of code signals, with the first correlations using a first
5 number of code signals, and with ~~[[next]]~~ the second and any
subsequent correlations using a second number of code signals
smaller than said first number of code signals.

Claim 4 (Currently Amended). The correlation ~~Correlation~~
system ~~[[4]]~~ according to claim ~~[[3]]~~ 1, ~~characterized in that~~
wherein said controller ~~[[3]]~~ is coupled to a comparator
~~[[5]]~~ for comparing correlation results for ~~in dependence of~~
5 ~~comparison results~~ adapting said at least one correlation
parameter in dependence of comparison results.

Claim 5 (Currently Amended). The correlation ~~Correlation~~
system ~~[[4]]~~ according to claim 4, ~~characterized in that~~
wherein said controller ~~[[3]]~~ is coupled to a selector ~~[[5]]~~
for ~~in response to comparison results~~ selecting a reduced number
5 of code signals to be used for next correlations in response to
the comparison results.

Claim 6 (Currently Amended). A mobile ~~Mobile~~ terminal
~~[[1]]~~ for searching cells identified by code signals, which
mobile terminal ~~[[1]]~~ comprises a receiver ~~[[2]]~~ for
receiving a radio signal comprising at least one code signal and
5 for converting said radio signal into an input signal and
~~comprises~~ a correlation system ~~[[4]]~~ coupled to said receiver
~~[[2]]~~ for correlating said input signal with a number of said
code signals each having a code length, ~~characterized in that~~
wherein said correlation system ~~[[4]]~~ comprises:

10 a plurality of correlators; and
 a controller [(3)] for controlling said correlation system
 [(4)] for performing iterative correlations and for adapting at
 least one correlation parameter per iterative correlation, said
 controller controlling said correlators such that first
15 correlations are performed by all of said correlators using the
 same code signals each having a first length smaller than said
 code length and second correlations are performed by only a
 portion of said correlators selected based on results of the
 first correlations and using the same code signals each having a
20 second length larger than said first length and smaller than or
 equal to the code length.

 Claim 7 (Currently Amended). The mobile Mobile terminal
 [(1)] according to claim 6, characterized in that a first
 correlation parameter corresponds with the length of code
 signals, with first correlations using code signals each having a
5 first length smaller than said code length, and with next
 correlations using code signals each having a second length
 larger than said first length and smaller than or equal to said
 code length wherein the second length is smaller than said code
 length, said controller controlling said correlators such that
10 third correlations are performed using the same code signals each
 having a third length larger than said second length and smaller

than or equal to said code length, said third correlations being performed by fewer correlators than used to perform said second correlations.

Claim 8 (Currently Amended). The mobile ~~Mobile~~ terminal
[[(1)]] according to claim [[7]] 6, ~~characterized in that wherein~~
a second correlation parameter corresponds with the number of
code signals, with the first correlations using a first number of
5 code signals, and with ~~next~~ the second and any subsequent
correlations using a second number of code signals smaller than
said first number of code signals.

Claim 9 (Currently Amended). The mobile ~~Mobile~~ terminal
[[(1)]] according to claim [[8]] 6, ~~characterized in that wherein~~
said controller [[(3)]] is coupled to a comparator (5) for
comparing correlation results for ~~in dependence of comparison~~
5 ~~results~~ adapting said at least one correlation parameter in
dependence of comparison results until at least one cell has been
found through identification of at least one code signal.

Claim 10 (Currently Amended). The mobile ~~Mobile~~ terminal
[[(1)]] according to claim 9, ~~characterized in that wherein~~ said
controller [[(3)]] is coupled to a selector [[(5)]] for ~~in~~
~~response to comparison results~~ selecting a reduced number of code

5 signals to be used for next correlations in response to the
comparison results until at least one cell has been found through
identification of at least one code signal.

Claim 11 (Currently Amended). A method ~~Method~~ for
correlating an input signal with a number of code signals each
having a code length, ~~characterized in that said method comprises~~
~~the steps of~~ comprising:

5 performing iterative correlations and ~~of~~ adapting at least
one correlation parameter per iterative correlation, said step of
performing iterative correlations and adapting at least one
correlation parameter per iterative correlation comprising:
performing first correlations using all of a plurality of
10 correlators using the same code signals each having a first
length smaller than the code length, and performing second
correlations using only a portion of the correlators selected
based on results of the first correlations and using the same
code signals each having a second length larger than the first
15 length and smaller than or equal to the code length.

Claim 12 (Currently Amended). A processor ~~Processor~~ program
product embodied in computer-readable media for correlating an
input signal with a number of code signals each having a code
length, ~~characterized in that~~ wherein said processor program

5 product comprises the functions of performing iterative correlations and ~~[[of]]~~ adapting at least one correlation parameter per iterative correlation, said processor program product being arranged to provide the same code signals each having a first length smaller than said code length to all of a
10 plurality of correlators, obtain the correlation results from all of said plurality of correlators, and then provide the same additional code signals each having a second length larger than said first length and smaller than or equal to the code length to only a portion of said correlators based on the obtained
15 correlation results.

Claim 13 (Currently Amended). A method ~~Method~~ for searching cells identified by code signals, ~~which method comprises the steps of~~ comprising:

receiving a radio signal comprising at least one code
5 signal; and of
converting said radio signal into an input signal; ~~and of~~
correlating said input signal with a number of said code signals each having a code length; and ~~, characterized in that said method comprises the steps of~~
10 performing iterative correlations and ~~[[of]]~~ adapting at least one correlation parameter per iterative correlation, said step of performing iterative correlations and adapting at least

one correlation parameter per iterative correlation comprising
performing first correlations using all of a plurality of
15 correlators using the same code signals each having a first
length smaller than said code length, and performing second
correlations using only a portion of said correlators selected
based on results of the first correlations and using the same
code signals each having a second length larger than said first
20 length and smaller than or equal to the code length.

Claim 14 (New). The correlation system according to claim 1, wherein the code signals having the first length are an initial portion of the code signals.

Claim 15 (New). The mobile terminal according to claim 6, wherein the code signals having the first length are an initial portion of the code signals.

Claim 16 (New). The method according to claim 11, further comprising forming the code signals having the first length from an initial portion of the code signals.

Claim 17 (New). The method according to claim 11, further comprising:

determining which of the correlators provide the best

correlation results from the first correlations; and

5 using those correlators determined to provide the best
results from the first correlations as the portion of correlators
used for the second correlations.

Claim 18 (New). The method according to claim 11, wherein
the second length is smaller than the code length, and further
comprising performing additional correlations using only a
portion of those correlators used for the second correlations and
5 using the same code signals each having a third length larger
than the second length and smaller than or equal to the code
length.

Claim 19 (New). The method according to claim 11, further
comprising:

identifying a single correlator which provides the best
correlation result after performing the first and second
5 correlations; and

analyzing the correlation result relative to a threshold.

Claim 20 (New). The method according to claim 11, further
comprising varying the difference between the first and second
lengths as a function of the correlation results from the first
correlations.